

EDITORIAL

Hand Rolled and Hand Dipped

vs.

Machine Made and Machine Dipped

THIS is a rather delicate and dangerous subject to discuss frankly because of the various conflicting interests which are partial to one class of goods or the other, however, in view of some recent developments in machinery and methods for producing high class chocolate cream work it is in order to at least consider seriously the relative merits (and demerits) of each respective method. Let's grant, to begin with, that quality is the first consideration in the piece of goods in question and that a fondant for hand rolls is of finer eating quality than a cast cream (whether it is a fact or not). There are two good, reliable machines on the market for shaping hand rolled centers—one for large volume production and the other for smaller output. These machines justify their installation from standpoint of lowering cost of production and at the same time eliminating a serious sanitary hazard incident to the old method of forming centers by hand.

There are many manufacturers of quality goods who maintain that they are producing just as fine a center in starch as was ever made by hand. But that is a question for solution by each individual manufacturer; regardless of how the center is made the next thing is the coating. To hand dip or machine dip—that's the question.

In an early issue of THE MANUFACTURING CONFECTIONER will be described a device with which, it is claimed, the characteristic hand dipped quality of chocolate work can be produced from a standard coating machine. The device is not on the market, but can be made to order.

The salvation of the legitimate manufacturing confectioners, with volume production on a commercial basis, who feel the competition of the "home made candy kitchen business" is logically along lines of what Geo. S. Ward terms the big three: "Machinery, Sanitation and Quality"—they should go together as a unit in quality, volume production. Such was the vision of a man who pioneered the "bread factory" in a day when the "bakery" or bake shop was fighting a losing game with the home made product of the housewife's kitchen.

Geo. S. Ward's idea and ideal of volume production of a quality product under the most scrupulously clean, sanitary and hygienic conditions has revolutionized the baking industry. The fate of "home made bread" has a parallel which will be recognized sooner or later by at least the quality group of candy manufacturers with vision and determination to act on these things which will elevate, expand and safeguard the confectionery industry.

Conditioned Air

Air conditioning has a very important bearing on sanitation. If air is introduced into a room through a properly designed conditioner it will maintain the room at the correct temperature and proper relative humidity and at the same time the air will be free from dust and other impurities resulting in greatly increased efficiency on the part of those working in the room as well as keeping atmospheric impurities out of the product. Certain raw materials which enter so largely into the manufacture of candy are natural cultures for bacteria of all kinds and when food products are manufactured in a room in which the air is taken from the outside without being purified it picks up a great amount of bacteria which is injurious not only to the health of the employees, but also to the quality of the goods.

Many people do not realize that in order to properly store confectionery, it should be kept

in a room where the air is not only cool but pure, fresh air and free from excessive moisture. Otherwise there is danger from mold and similar troubles. Refrigerating coils on the walls or ceilings of storage rooms will not produce the proper conditions, but this can be readily accomplished by the use of air conditioning apparatus.

An air conditioning apparatus was installed in a large banking institution and by reference to the records it was shown that absence from work due to colds and similar maladies was reduced 60%. From the standpoint of health and efficiency the installation of air conditioners would be fully warranted, but when there is added to this the ideal conditions for the proper functioning of manufacturing processes, then it would seem that such equipment should be a staple, standard item in every complete installation of a confectionery plant.



Announcing

A new series of three articles for the Sugar Buyer:

I

Averaging Costs With Low-Priced Sugars

The next article in this series will be on the subject of "The Operation of the Sugar Futures Exchange Simply Explained." The third and concluding article will be on "Using Sugar 'Futures' to Fix Costs."

by A. Adams Lund

CONTRAST with the present low price of sugar, the series of sustained advances which have taken place in practically all other important candy making materials. Corn syrup has reached the highest point since the war and at the present writing, with all tolerances allowed, it is doubtful if it can be called an economical substitute for sugar. Cocoas, having awakened from their long period of lethargy, have already recovered a substantial proportion of their normal values; nutmeats of all descriptions, egg products, vanillas—all in a grand surge upward—conspire to make the cost man's job an unenviable lot for the coming year. It is not to be marvelled at, therefore, that a number of the largest manufacturers, finding that the present price of sugar will reduce their raw material costs to a point which will show them a satisfactory profit, have abandoned the attitude of "watchful waiting" and jumped in for their year's requirements of this controlling item.

Seven Reasons Why

There are seven reasons why this position for the year is sound:

1. Raws at $2\frac{3}{4}$ cents are at or very near the cost of production. Cuban raw sugar for July delivery, selling at around 3 cents C. & F., is equivalent to 6 cents for refined, which is about $\frac{1}{4}$ cent less than the low of the last two years. When a world staple like sugar gets down to within a small fraction of a cent of the cost of production, the buyer will do well to cover regardless of any amount of statistics to the contrary.

2. On the above basis, sugar futures are the cheapest commodity in the world. Persistent reports of a heavy over-production have resulted in the accumulation in the market of a large short interest.

3. The late reports tend to show that the crops have been largely over-estimated, not that there will not be a sizable surplus, but that the pendulum has swung too far.

4. The daily large purchases of contracts, particularly by Cuban interests, give evidence of the underlying strength of the market.

5. The visible and invisible supplies, both of raws and refined, are the smallest which the world has carried for many years, the majority of the consumers having been waiting for a readjustment of prices on refined before making regular purchases. The low price of sugar, in itself, always results in a general broadening of the demand.

6. When profit-taking occurs in securities, investors always turn to low-priced commodities, such as sugar.

7. The banks and the moneyed interests which have been instrumental in financing the Cuban crop, will protect the price for the benefit of both the grower and themselves.

When Is the Most Opportune Time to Cover?

In the September issue of **THE MANUFACTURING CONFECTIONER**, the writer presented a graph which showed the courses of raw and refined sugar prices during 1921-24, inclusive. From this we observed that the low points of the year appear to be recorded during the peak of production, somewhere between February and

April. When these low points are reached, there are no flags hung out to signify their presence, consequently few people get in on them. It is obviously wiser to take advantage of a price that is known to be low and average *down*, if necessary, than to let the low point slip away from you and begin by averaging *up*.

For How Long a Period Is It Desirable to Cover?

While a great deal, of course, depends upon individual conditions, it is safe to say that sugar around, at, or below the 6-cent level presents a minimum of risk for the entire year. Even if the market should be temporarily depressed below this point, a manufacturer would have no difficulty averaging down with subsequent purchases or working off the slight difference in his product.

What Means Are Offered for Covering on One's Requirements for an Extended Period?

In general there are four methods by which a manufacturer may protect himself on the sugar market against an advance in price.

First, by buying refined sugar on contract over thirty to sixty day periods, with or without price guarantees. The form of the guarantee given by the refiner has undergone considerable modification during the past year or so, although it is possible that a return to competitive conditions may call forth some of the more attractive forms which are at present shelved. The present variety reads something as follows:

"Buyer to be given the benefit of refiner's lowest price on date of withdrawal or date of delivery, if lower than the contract price."

This type of guarantee, while not undesirable from the standpoint of the prospective purchaser, falls considerably short of giving maximum protection in a market subject to sharp dips or reactions. For this, the form employed prior to 1924 was ideal—as far as the buyer was concerned! A favorite wording follows:

"Refiner's price on date of delivery if lower than contract. Undelivered portion of contract to be re-entered at the lowest price made by the refiner during the life of the contract."

Under these terms, the buyer had all to gain and nothing to lose in placing a contract. The obvious fault with this guarantee was that it was one-sided. The buyers overbought and in so doing succeeded in killing the goose that lay the golden egg. The refiners have found its employment so entirely unprofitable that there is little likelihood of their offering it to the trade again unless all other means fail to move sugar.

Apart from the "price guaranteed to date of delivery" form of contract, there is but one other means of protection offered to the small manufacturer (whose needs do not come up to 50 tons a month), and that is to buy the sugar outright and place it in storage for future use.

While this method eliminates the possibility of delays in delivery, it is an advantage gained at the expense of storage and carrying charges on the investment, not to say the possibility of physical losses or damage to the material.

To the larger manufacturer, considerably more choice is offered in the selection of a suitable means of protection. If he is resourceful enough financially, he may even own and operate his own sugar mill and plantation in Cuba. He may draw up a yearly contract with a refiner, deliver his sugars to the refinery direct, and withdraw against them equivalent quantities of refined sugar. A toll charge is made by the refiner for processing the sugar (usually around \$1.25 per 100 pounds), and at the end of the year the withdrawals are balanced against the deliveries of raws and an adjustment made for any differences in value. It is apparent that this method of purchasing refined sugar is quite out of the reach of the average confectioner.

A modification of this method of protection available to manufacturers of lesser magnitude would be to purchase from a large grower or operator a certain fixed quantity of refined sugar for delivery during specific future months, the operator tolling the sugars through some refinery himself, protecting himself on the Exchange as he may deem necessary to protect the sale, and directing the delivery of the refined sugar to you as you need it. This method could only be worked out with manufacturers whose requirements of refined sugar were at least equivalent to the minimum futures contract of 50 tons, for each month it was desired to cover. It provides some of the advantages of futures trading without actual participation on the part of the manufacturer. Propositions of this tenor are not always to be had when they are wanted from the operator, however, and so may be dismissed for the present with this brief mention.

The Most Practical Method

At the present moment by far the most profitable and economical method of protecting against an advance in price is the "hedge" on the "futures" Exchange against purchases of refined sugars made as you need them, and apply the profits from your futures transactions to offset the current cost of refined. Let it be said here that for a manufacturer to cover his needs on the Exchange is not gambling. Often it is more of a gamble not to do so. European manufacturers have long accepted the exchanges as a necessary part of their business, while we in America, are slowly awakening to their legitimate possibilities as a means of protecting profits once seen, minimizing losses on the inevitable declines, and pre-determining months ahead what the costs of our various products will be. This process of "arbitraging" or "hedging" against refined purchases on the N. Y. Coffee and Sugar Exchange will be

dealt with fully in subsequent articles in this series.

To the end that there may be a fuller appreciation of this fundamentally important subject, we are including elsewhere in these pages a

practical working dictionary of the words, phrases and terms commonly employed in the sugar trade. Study those which are unfamiliar to you and preserve the section for future reference.

STABILIZING COSTS

A PACKAGE which shows us a profit today may show up in red tomorrow; our costs which are low for today, tomorrow may be "kiting." Time rules these costs and "futures" are the machinery which commerce has provided to offset time.

Sugar Trade Glossary

Definitions and Explanations of Words and Phrases Used by the Sugar Trade

*T*O the inexperienced trader, unfamiliar words and phrases constitute about 99 per cent of the mystery which surrounds the actual and futures sugar markets. In the ordinary course of barter, there has developed a sort of trade jargon consisting of brokers' slang, words and phrases having technical significance on the stock and commodity exchanges, and in not a few instances, terms peculiar alone to the sugar market.

What the newcomer needs, therefore, in order to understand the various processes involved in dealing in these sugar markets, is a concise dictionary of definitions. Following are the definitions of a selected list of the more common words and phrases used by the sugar trade.

Active Months.—The positions in which the bulk of the trading is done on the Exchange; usually March, May, July, September and December, with January and October moderately active. The remaining months are rarely traded in.

Actuals.—Contracts for the purchase or sale of specific sugars available for prompt delivery; spot sugars.

Afleats.—In sugar statistics, raw sugars shipped from the country of production and under way to U. S. ports of discharge.

Allocation, or Allotment Basis.—The apportionment or distribution of sugars during periods of shortage. It differs from the pro-rata basis in that the refiner exercises his own discretion as to which customers shall be allotted sugars and what quantity each shall receive.

Allowances.—On Centrifugal sugars delivered through the N. Y. Coffee and Sugar Exchange, Inc., a charge or deduction in price for the difference between the actual polarization of the sugar delivered and the standard of 96 degrees on which the futures contract is based.

Arbitrage.—Trading in which the profit arises from the difference of value of the same commodity in different markets at the same time. Buying raw sugar futures as a hedge against actual purchases of refined would come under this head. Also (v. t.) ARBITRAGE; ARBITRAGIST.

Asked, or Asking Price.—The price at which futures contracts are offered for sale.

Assortment Basis.—Buyer's option of grade.

Average.—To make successive commitments as the market goes up or down, and "average" the aggregate purchases to avoid violent fluctuations in cost.

Basis Price.—Price for Standard fine granulated; special grades of refined sugars charged at differentials above or below basis price.

Bear.—A person who sells for future delivery in expectation of a fall in price. (v. t.) to endeavor to depress the prices of or the prices in; as, to "bear the market."

Beets, Beet Sugar.—Sucrose extracted from the juice of the sugar beet (*Beta vulgaris*).

Bid Price.—Price offered for contracts for future delivery on the Exchange.

Board.—A bulletin board on which is posted a record of all futures business transacted in the ring.

Broad Market.—A market with many participants; the opposite of a traders' market.

Bulge.—A sharp advance followed by a decline.

Bull.—One expecting or trying to effect a rise in price. (v. t.) to try to raise the price.

Call, The.—The calling of the months on the floor of the Exchange immediately after the opening. Each month is traded in successively until all opening orders have been executed.

Call.—The right to demand a certain amount of sugar at a fixed price, at or within a certain time agreed upon. It is obvious that this option only becomes valuable to the holder in the event that the position for which the call is purchased advances to a price higher than

that named in the call, plus the price of the call and the brokerage commissions. The transaction is closed by the payment of the difference in value, if any, in favor of the holder of the call.

Cane, Cane Sugar.—Sucrose extracted from the juice of the sugar cane (*Saccharum officinarum*).

Carry-Over.—Excess of production over consumption "carried over" from one year into the next.

Central.—A sugar mill which works for several plantations. The number of mills operating at one time is an indication of the rate at which production is going forward.

Centrifugals, Centrifugal Sugars.—Sugar freed from liquid by a machine acting by centrifugal force; specifically, raw sugar extracted from the cane juice in this fashion.

Clearing, Clearance.—1. The freeing of a ship or cargo by payment of customs duties, harbor fees, etc., or the receiving of permission to leave port (outward clearance) or to discharge cargo (inward clearance). 2. The settlement of claims or adjustment of accounts through the clearing house.

Close, The.—A period of one minute preceding the closing of the Exchange.

Closing of the Exchange.—The Exchange closes at 3:00 P. M. daily except Saturday, 12:00 M.

Close Out.—To sell a bought futures contract, thereby completing the transaction.

Commission.—The commission charge for **buying and selling** on the Exchange a minimum contract of 50 tons of raw sugar is \$25.00 if the price is under 4c; \$30.00 if the price is over 4c. See also FLOOR BROKERAGE.

Consignment Stocks.—Refined sugars sent to an agent to be sold. Stocks are carried by refiners at strategic points throughout the country, to facilitate delivery to their out-of-town trade.

Contract.—A futures contract is an agreement calling for the delivery during a specified month, of 50 tons of raw sugar or multiples thereof.

A contract in "May sugar" is a contract satisfied upon the delivery of 50 tons of sugar, of proper grade, during the subsequent month of May.

Cost and Freight, C&F.—Cost at the port of shipment with freight added to the port of discharge; the cost of raw sugar without the addition of duty. The sugars themselves are often referred to as "cost-and-freights."

Counter-Position.—Process of going under cover; a "straddle"; the term is not to be confused with "hedge"; in an uncertain market, instead of liquidating and remaining out of the market, many traders prefer to maintain a position both long and short, subsequently rebuying or reselling either of the two positions when a definite trend has been established.

Cover.—To purchase sugar to satisfy a sale previously made on the Exchange, thus completing the contract.

Damp Sugar.—A refined sugar taken direct from the centrifugals and packed without drying; an "A" sugar.

Dealers in Arbitrage.—See ARBITRAGE.

Deliveries.—In sugar statistics, deliveries comprise all arrivals of raw sugars to refiners and all deliveries of raw sugars to refiners from importers' stock.

Demand.—To call for delivery on a contract.

Differential.—A charge made or a deduction allowed on special grades of refined sugar, from the prevailing basis price of standard fine granulated; also, an extra charge made for variations in packing from the 100-lb. bag.

Dip.—A sudden market decline followed by an advance.

Discretionary Order.—An order given to the broker to be executed at his discretion or upon his judgment of market conditions.

Double Up.—To completely reverse one's position on the market; i. e., being long, to sell out and go short for the same amount.

Duty.—The government tax on imported sugars; Preferential sugars, \$1.7648 per 100 lbs.; Full-duty sugars, \$2.206 per 100 lbs.

(To Be Continued.)

"Treated Sugar" Gives Hard Goods Greater Resistance to Atmospheric Changes

OME interesting experiments have been made in recent months by Barach Cerf of Chicago, on obtaining for high cooked goods a greater resistance to weather conditions with severe changes of temperature and humidity. It is reported that these experiments are reasonably successful and that the secret of the accomplishment lies in the use of a "treated sugar," that is, ordinary confectioner's sugar, which has been "treated" by a process perfected by Mr. Cerf, who has named this product "Resisto."

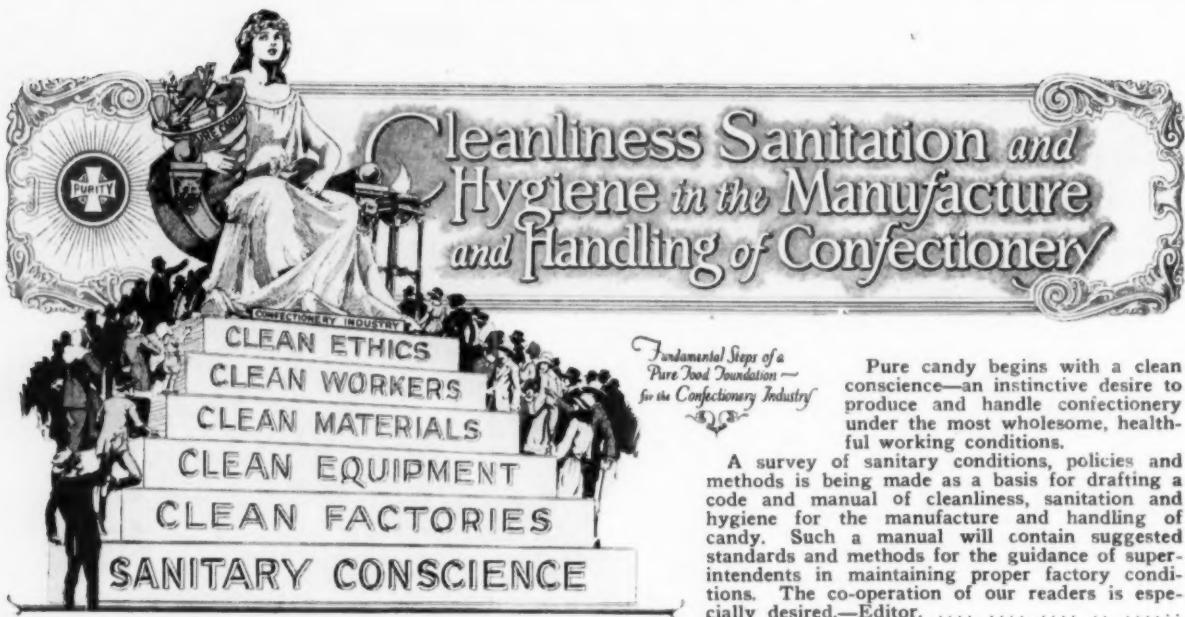
"Treated sugar" or 'Resisto,' Mr. Cerf says, "is nothing other than a combination of sugar and corn syrup, in varied proportions, treated, catalyzed and prepared over a period of time. When 'Resisto' is put into a batch it replaces an equal percentage of sugar; for instance, 10 pounds of sugar left out and 10 pounds of 'Resisto' put in and proceed to build your batch and handle it as usual—no change of formula necessary. Use it in all high cooked work—hard candies, stick suckers, brittles, etc., either vacuum or open fire."

Mr. Cerf claims that the finished product in which

"Resisto" is used is identical in appearance and eating qualities with candy made of same corresponding formula without "Resisto," and with the added merit of greatly improved keeping qualities—a product which possesses a much greater resistance against sticking, sweating and loss of appearance. Therefore, hard goods can be made with "Resisto" and a high percentage of corn syrup and the finished product possess a keeping quality or resistance of a piece of goods containing approximately 50 per cent more sugar.

Mr. Cerf maintains also that there should be available to the manufacturers of candy a quality of corn syrup which is refined especially for use in high cooked candies. The standard grades of confectioner's corn syrup on the market today are ideal for cream work and all soft or lower cooked goods, but places an unnecessary burden or handicap on the manufacture of hard goods.

It is claimed that with "Resisto" and an improved corn syrup the Utopia of hard goods manufacture will have been reached. Further information and development on this subject can be had from Mr. Cerf by addressing him care THE MANUFACTURING CONFEC-
TIONER.



Fundamental Steps of a
Pure Food Foundation
for the Confectionery Industry

Pure candy begins with a clean conscience—an instinctive desire to produce and handle confectionery under the most wholesome, healthful working conditions.

A survey of sanitary conditions, policies and methods is being made as a basis for drafting a code and manual of cleanliness, sanitation and hygiene for the manufacture and handling of candy. Such a manual will contain suggested standards and methods for the guidance of superintendents in maintaining proper factory conditions. The co-operation of our readers is especially desired.—Editor.

Sanitation and Hygiene—Assets in Food Production

by Wm. E. Brown, M. D.

Industrial Health Conservancy Laboratories:

EDITOR'S NOTE: Dr. Brown is a practicing physician and surgeon who has specialized on industrial health work. The Industrial Health Conservancy Laboratories with which he is associated are co-operating with us in our survey of sanitary conditions and preparation of a manual of cleanliness, sanitation and hygiene for the confectionery industry.



SO SUBSTANTIAL has been the growth of the candy industry in the matter of production, and the number of individuals employed, that it today ranks as one of the foremost industries of the country. Increased production must necessarily mean increased consumption, with the result that the candy industry today serves practically the entire public. People in all walks of life and at most ages eat candy. Because of these facts candy can no longer be treated as a semi-luxury, but must be said to fall in the class of a food product. Because of this, the public is entitled to be concerned over its vitamin content and the quality and purity of the ingredient materials.

Of late years the public has taken a deeper interest in the question of the value of its foods, the source of supply, the manner of handling,

and the efforts taken to assure delivery of a clean and wholesome product. With the advent of the so-called "Pure Food Laws" of federal and state governments there has been an increasing and proper concern on the part of the public regarding foods. This concern on the part of individuals and groups of individuals has developed a consciousness on the public's part of right to demand properly prepared and properly handled foods.

What Part Do Sanitation and Hygiene Play in the Proper Preparation of Food Products?

Sanitation and hygiene mean many things to many men. For the purpose of discussion we will pre-suppose that sanitation has to do with the physical environment of the individual, while hygiene has to do with the individual and his acts. Someone has aptly said, that cleanliness is a state of mind. The same may be said of sanitation and hygiene. However, this state of mind should be transformed into a physical condition.

How May the State of Mind of Cleanliness Be Created?

It is first concerned with the concept of cleanliness on the part of the executives actually in charge of production. There must be a sanitary consciousness re-enforced by a sanitary conscience on the part of such individuals. This is the leaven which must leaven the whole group. It should permeate the entire working group, extending through the organization from the executives to the foremen and thus down to the individual employe. Were this concept to remain as a mental state, only a small part of the problem would be solved. This must be transformed into actual operations by a knowledge on the part of each individual as to what may be his part in the actual work.

The Psychology of Good Housekeeping

In actual factory operations all food producing industries should employ such methods as might be termed "good housekeeping." This is important not only from the standpoint of sanitation, but also from the effect which it has upon the morale of the worker, and the curtailing of petty wastes. No worker is better than his environment. If the working conditions are fundamentally poor they will be reflected in the work of the individual. If he has a sanitary consciousness at the beginning of his employment, but is placed in a messy and unsanitary plant he will lose such consciousness and will never develop a sanitary conscience. A plant which has a cluttered appearance from an accumulation of waste materials, a piling up of unused kettles and buckets, and an improper exposure of food materials, etc., will sooner or later find its methods degenerating. This is one of the best arguments for a nicely painted, well arranged, well lighted, and well ventilated factory workroom, with processes conducted in such a manner as to avoid clutter.

Good housekeeping methods also demand floors of proper texture, so that they may be readily cleaned. The cleaning squad must be well organized and must be intelligent enough to appreciate the importance of its work. The arrangement of the time for its work must be such as to keep the factory clean and yet not put extra sanitary hazard on the actual work of production.

Use and Abuse of Machinery

The development of machinery has been a great step in the promotion of sanitation and cleanliness. There is no doubt that machinery has been a great boon to food producers. However, modern machinery in food production has offered a great pit-fall to the unintelligent and careless manufacturer. "Not touched by human hands" has led the unintelligent producer to feel that his problem in giving the public a sanitary product, has been solved. It has placed at his disposal a great aid, but unless this is supplemented by a concept of strict cleanliness,

he may be guilty of placing on the market an article inferior from the sanitary standpoint.

Machines must receive the greatest amount of attention in order to produce clean foods. Each employe must hold himself responsible for the cleanliness of the machine on which he works. Accumulation of materials used in manufacturing tends to increase the bacteriological content of food, which, even though it may not produce disease in itself, makes for poorer eating and keeping quality. Any employe who allows his machine to become unsanitary will employ unsanitary methods in using that particular machine.

It should be the individual pride of machine operators to have their machines in spotless condition. Cleanliness of machinery should not be simply a matter of concern at the close of the day, but should be a continuous part of the process. Where the idea of cleanliness originates in the employer and is reflected down the line, not only will the demands of sanitation be met but sanitary methods will become a reflex. Of course, where such demands are made working materials must be available. This means an abundance of live steam, hot water, soap, and other cleansing materials.

Importance of Personal Hygiene

The matter of hygiene on the part of the worker is fundamental. No amount of equipment can make up for poor personal hygiene. In order to make possible the best personal hygiene, there are certain fundamental requirements:

First: The worker himself must have a certain degree of intelligence which makes him appreciate the importance of his work. Second: He must be a healthy individual. This latter qualification is important from several standpoints. If the individual is not healthy his output will be smaller and of poorer quality. If the individual is suffering from any of the various infections he offers a decided menace to his fellow employes and to the ultimate consumer.

In order to obtain the proper employes, it is of great importance to have the employe examined at the time of first employment, and at regular periods. It is also important to have a competent physician to whom the employe may turn at the time of minor illness, not only to make him a better worker, but also to prevent the possible contamination of foods. The only method of bringing about these results is through the employment of a well-organized medical department. The organization and hours of this department must be determined by the size of the plant. The work of the health department must be supplemented by proper facilities to enable the employe to practice good personal hygiene.

The personal appearance of the employe reflects itself in his work and in his habits. It has been found by most food manufacturers that standard uniforms, supplied and laundered by

the manufacturer, maintain the best standards of cleanliness.

The personal habits of the individual again are influenced by the facilities offered. Where proper toilet facilities are maintained and kept clean, the employer has the right to demand of the employe a high standard of cleanliness as regards personal habits. Every plant should be equipped with locker rooms and toilets which are entirely apart from the factory proper. These rooms should be supplied with soap and water, as well as individual towels. There should be some method of acquainting employes with the danger of carelessness in regard to the washing of hands. Employes should be made to realize the fact that they offer a serious menace to the employer as well as to the consumer if such matters are neglected.

It has long been known that carelessness in food handling has been the means of spreading disease. No known epidemic has been traceable to candy. However, there have been many instances in which candy has been blamed for illnesses on the part of children. To the best of our knowledge, few if any of these cases have ever been substantiated. However, it shows the tendency on the part of the public to incriminate the last food consumed whenever illness occurs. It therefore behooves the manufacturers of food products to place every possible safeguard about their products.

How May the Proper Safeguards Be Thrown About Such a Food Product as Candy?

This has been answered by many candy manufacturers. The answer is brief. They have utilized every known method to promote sanitation and hygiene in their respective plants. As previously stated, all of these methods have been based upon sanitary consciousness, supplemented by a sanitary conscience. Such manufacturers deserve great praise and large returns for their efforts.

One naturally asks, "Can such manufacturers carry to the public the gospel of sanitation for the entire industry?" It is apparent that alone they cannot. Any industry with only a part of its members conforming to the best in sanitation, will not receive support from the public in the form of increased consumption. It takes concerted action on the part of all manufacturers to bring an industry to the highest pitch of sanitary and hygienic production. Indus-

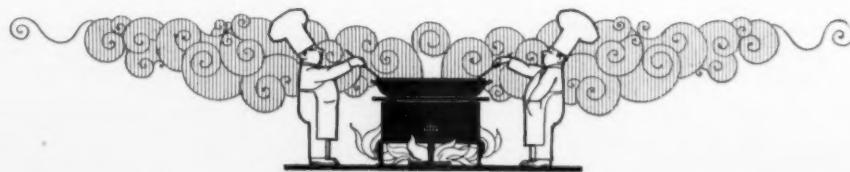
tries, that desire such concerted action, must study the problems of the industry as a whole.

After having studied such problems and having gained first-hand knowledge of the problems, the next step is to incorporate the remedies in the form of a standard manual or guide. For want of a better name, such standards and guides are commonly called "Sanitary Codes." Such codes must be of clear presentation and of such construction as to be a text book of sanitation and hygiene, not only for the employers but for the employes. Then with the background of a sanitary conscience, cooperation on the part of all workers in the industry may be obtained.

All manufacturers, whether they be in the food industry or in other lines of production, are pursuing their work with the hope of profit. Naturally the question arises whether the efforts necessary to maintain high standards of sanitation in the food industry are worth while. The question has long since been answered in the affirmative by many a successful manufacturer. Most successful manufacturers state definitely that clean methods pay, if for no other reason than that they curtail waste. It pays to be clean! Other manufacturers add that sanitation is a business asset in the fact that better work comes from clean, healthy workers in a proper environment. There is also increased consumption of their product by a public which appreciates a sanitary product. Then, there is a distinct added satisfaction on the part of any manufacturer who gives dollar for dollar in the form of a clean sanitary product.

How Can the Manufacturer of Good Products Meet the Competition of the Conscienceless Producer?

The best answer to this is that no pre-eminently successful food producer has ever reached the height of his success by unsanitary methods. As a practical method of reaching the public and enabling it to discriminate between goods produced under proper methods, and those produced under unsanitary conditions, an organized method of advertising based on a good sanitary foundation is to be recommended. *The candy industry today is interested in an increase of consumption. Such increase of consumption will come more readily where definite evidence is shown that the industry as a whole is maintaining proper standards in sanitation and hygiene.*



The Manufacturing Confectioner's TROUBLE CHART

Compiled by Adrian LeRoy

II—Cream Work

Creams Die and go dry after a few weeks but have not grained.

- Moulded too hot.
- Damp starch.
- Evaporation of moisture, probably too long in starch.
- Stored in hot room.
- Starch too hot.
- Overheated while remelting.
- "Bob" too large for batch.
- Bob too hot.
- Low boiling.
- Over boiling.
- Fermented.
- Defective "doctoring."

Creams ferment and burst, but not classified as leaking. Probably few weeks or so after goods have been finished. Creams go sour.

- Development of bacteria.
- The germ "Coli."
- Presence of wild yeast. Caused probably by adding water that has not been scalded to kill bacteria.
- Wetting the hands to remove fondant from tubs.

- Too much albumen.
- Damp, dirty starch.
- Real fruit flavorings.
- Damp department.
- Damp centers.

- Free moisture in dipped centers.

Creams go grainy while setting in starch.

- Overheated.
- Too long in remelting pan or in hopper of depositor.

See "Creams are sandy."

Bon Bons go spotted, mottled or marked.

- Overheated dipping cream.
- Adding excess water.
- Over boiled cream.

- Too long in melting pot.

Creams are sandy but not grained.

- Creamed too hot.
- Overheated.
- Slow boiling.
- Sides of remelt pan too hot.
- Batch stirred after boiling point has been passed.

- Too long in remelting pan.

Adding water.

Hand rolled creams leak.

- Over doctored cream.
- Too much albumen.
- Faulty Dipping.
- Cooling system too severe, causing too great and too quick contraction of the chocolate for the cream.
- Rough hand rolling.
- Using too much flour, etc., while hand rolling.

Creams go sour.

See "Creams Ferment."

Starch deposited creams will not flow, but have been made correctly otherwise.

- No reaction.
- No inversion.
- Sugar crystals exceed those of syrup films in center.
- Enzyme inferior.
- Evaporation of moisture.

Cherries do not liquify.

- Too much dipping cream on cherry.
- Cherries too dry, drained too long.
- Absence of sufficient acid or inverting agent.
- Dipping cream at fault.

Cherries go sour after being dipped a few weeks.

- Cherry preserving at fault; probably water for making solution not scalded to kill bacteria.
- Preservative not thoroughly mixed.
- Preservative expended or neutralized, or insufficient.
- Cherries overripe before treatment.
- Cherries put into wine casks.

Creams for export in tropical climates dry out on arrival at destination.

- Requires special formula containing glycerin, benzoin, etc.
- Faulty packing.
- Faulty tin foil.

Fondant grains in patches either on slab or in Ball creamer while waiting to Cool.

- Not sprinkling slab or machine with water.
- Scraping the boiling pan out onto the batch.
- Too much splashing while pouring.

Dirty machine or slab.

Bon bons go skrinkly on surface.

- Using white of egg or albumen in dipping cream.

Cherries shrink.

- Lack of alum in cherries solution.

Bon bons go sticky or sweat.

- Dipping onto cold marble or metal table.
- Dipping in a room too cold.
- Atmospheric conditions poor.
- Crystallizing.
- Low boiled dipping cream.

Fondant is spongy, air holes.

- Too much albumen.

Bon bon covering goes dry.

- Over-boiled cream.

Overheated.

- No glycerine added to cream.

Bon bon cream will not "stand up" for marking or curling.

- Not allowed to cool sufficiently before creaming.

Fondant or bon bon cream goes thick in remelting pan.

- Too much evaporation of moisture.

Too long in remelting pan.



THE TECHNICAL DEPARTMENT

The Manufacture of Nougat

by George J. Shaler

AFTER careful study of nougat as made and understood in several countries it would seem that the first and most essential thing in writing on the subject is to define the term. We will make no effort to tell what the word nougat means nor how it is understood by various peoples of the earth but simply what we mean by it in this article. It will be accepted to designate the combination of marshmallow and hard candy which is sold either chocolate covered or wrapped in wax paper. Regular nougat which in former days was associated with pistachio nuts and wafer paper.

It is rather interesting and instructive to consider the abuse this poor old name is subjected to. There must be a pitiful dirth of generic terms and names in the nomenclature of candies to compel one to bear the burden which has been heaped on nougat. I find that according to the geographic location the term specifies hard candy with nuts in it either cut or run through drop rolls, fondant with nuts and fruit cast in blocks and cut, hard candy with beaten egg white added, molasses kisses with an extra shot of frappe cast in starch, and lastly regular nougat, sometimes qualified with the term Montelimar.

As already stated the last named is "*nougat*" to us: we won't allow the rest at all. They simply don't belong. There is one allowable variation, it may be *short nougat* or it may be *chewy nougat* but there the elasticity of the term ends. No one can ring in any molasses kisses or hard candy here and call it nougat.

Fundamentals of Nougat Manufacture

The foundation principle in the manufacture of nougat is to cook two batches, one high and the other low and combine them in such proportion that the desired lightness and resistance will be obtained when they are beaten together. True nougat flavor is that of honey and egg cooked together. One seldom encounters it today.

In order to illustrate the different variations, possible and practical in nougat making, it will be easiest to give the formula and directions for a standard good product. That there may be no question of where this comes from we will take the liberty of copying it direct from Robert Wympers' revision of Auguste Jacou-

tot's book, "The Manufacture of Confectionery."

FINE MONTELIMAR NOUGAT

White honey	15. pounds
Glucose	6 pounds
Loaf Sugar	30 pounds
Blanched Almonds	15 pounds
Blanched Sicilian Pistaches	4 pounds
Glace Cherries	6 pounds
Albumen	3/5 pound
Vanilline Sugar	2/5 pound

"Dissolve the albumen in 3 pounds of cold water several hours before using. Put the almonds and pistachios in the dry room that they may be quite warm when required. Put the honey and glucose in the mixing and beating machine and mix with slight steam pressure, so that the operation of mixing and beating may be slowly performed. It should occupy about two and a half hours. After an hour's beating the albumen should be passed through a sieve and then beaten up in an egg whisk* and when quite stiff and light, it should be added to the mixing in the other machine. Now bring the 32 pounds of sugar to the crack. This should be so arranged that the sugar, and glucose and honey should both come to the same point, namely, the crack, at the same time. Add the boiled sugar and vanilline sugar to the glucose and honey. Stop the mixer and add the * * * remainder of the ingredients."

*Frankly we do not understand this but quote exactly.

It is evident that the above would give a very fair quality, *short nougat* if the instructions were exactly followed. Were the sugar split into two parts and half dried with the honey and half cooked with the glucose the result, on following the rest of the instructions out, would be a *chewy* piece which would grow sticky when exposed to the air.

The quantity of water used with the albumen seems to us excessive. In common practice a pound of albumen is soaked in two pounds of water. In a batch of this size a pound of water would make a decided difference in the consistency of the batch and therefore were the lesser quantity used the cook of the sugar batch would be lower.

From a study of the above formula it is evident that "Nougat" consists of a mixture of hard candy and marshmallow beaten together. In planning and making a batch the rules and peculiarities of both classes of goods must be borne in mind. There are certain rules peculiarly applicable to this work, however, and these are the ones most commonly used by its makers.

Four Fundamental Rules

1—All nougat should contain, for traditional reasons, a certain amount of honey. Remember that most honey contains some acid and

must be considered in the same category with acid scrap.

2—Practically all nougat is made light with egg white or albumen. Gelatine can be substituted and very successfully in a cheap piece but it is never possible to develop the same flavor as may be produced from egg.

3—The base is half sugar and half honey or glucose or a combination of the two. Theoretically an increase of the sugar proportion will cause "short" nougat to result while more than half non-crystallizable material will make it "chewy." As will be shown further on we can, in practice, fool the rule.

4—The greater the quantity of glucose used the lower the cook will be. While a high sugar percentage or an exceptional quantity of egg will necessitate a higher point. Water always goes into the mix with the egg.

Bearing the above outline in mind we will proceed down the scale of quality and see what may be accomplished. The first example will be a center for chocolate covering.

Batch No. 1	25 Corn Syrup	Cook to 266° F.
	15 Honey	
Batch No. 2	50 Sugar	Cook to 300° F.

Allow No. 1 to cool just enough to prevent the immediate cook of the egg. That is, the egg must not cook into white lumps or flakes. Have $1\frac{1}{4}$ pounds of albumen soaked in $2\frac{1}{2}$ pounds of water and beaten stiff. Add this to No. 1 and beat to a thorough mix. While the beater is in motion add No. 2 direct from the fire in a slow thin stream. Beat until light. At this time a portion of the batch cooled in water should show a clear "crack."

If this nougat is spread in trays or allowed to set up on a cold slab it will, on maturity be fairly "short." We make no mention of nuts and fruit because they can be added in any quantity as desired.

When covered with chocolate the foregoing is a good center but there is little to recommend it in preference to the following which is cheaper but more cleverly balanced.

Batch No. 1	45 Corn Syrup	Cook to 260° F.
	40 Sugar	
	40 Honey	
Batch No. 2	35 Corn Syrup	Cook to 265° F.
	40 Sugar	

Handle exactly as for the preceding formula using 2 pounds of albumen in 4 pounds of water.

The resulting product will be "chewy." If, however, it is desirable to have it "short" this can be accomplished in two ways:

1—All the honey and corn syrup may be cooked together to 260 to form the first batch and all the sugar to 300 to form the second. Otherwise the process is the same.

2—A simpler way is to reduce the sugar in the first batch by 15 pounds and proceed as before. When the beating is accomplished and the nuts, etc., about to be added, put in 15 pounds of powdered sugar and beat this through with the nuts.

Properties of Honey

It is not fair to pass this point without some mention of honey as an ingredient. All honey contains some acid which is active in the cooking. If the honey is cooked alone and added apart from the rest of the ingredients, as is sometimes done, the amount of acid present is of little importance. If on the otherhand it is cooked through the first batch and some sugar is present in addition, as in the preceding formula, the result of a high or low acid content may be disastrous. For this reason there are many who prefer to use an invert sugar of standard consistency instead of the honey relying on its uniformity for a regular product. If this is done it must not be forgotten that this product gives little or no flavor. The deficiency must be made up for by the addition of honey flavor. To continue down the scale. This formula has no honey but is still a very palatable piece and can hold up its head in a very fair chocolate assortment.

Batch No. 1	60 Corn Syrup	Cook to 255° F.
	40 Sugar	
Batch No. 2	20 Corn Syrup	Cook to 260° F.
	60 Sugar	

Handle as all previous batches, adding 25 pounds of powdered sugar and desired quantity of nuts at the end of the beat. $2\frac{1}{2}$ pounds of albumen in 5 pounds of water will be sufficient.

For extremely cheap goods it is possible to "load" the nougat with powdered starch. In fact it is surprising how much may be added without making the resulting product too bad. The following combination is about the limit in this direction but the result has been sold successfully both as a center and as a wrapped piece.

Batch No. 1	44 Corn Syrup	Cook to 250° F.
	20 Sugar	
Batch No. 2	37 Corn Syrup	Cook to 255° F.
	20 Sugar	

Beat No. 1 for five minutes then add $1\frac{1}{4}$ pounds of albumen dissolved in 3 pounds of water. Beat in, then add 15 pounds of powdered starch and stir through. Start up the beater and add No. 2 fairly quickly, continuing to beat until the batch does not stick to the blades of the beater. Stir in 10 pounds of powdered sugar and 30 pounds of small gum or jelly drops.

If careful thought has been given to the foregoing formulas it will be evident that basically nougat consists simply of a high and low cooked batch of candy. The low cooked batch is beaten to the consistency of marshmallow or frappe and the high cooked batch added. To make two batch nougat it is necessary to have a powerful, fairly high speed, mixing kettle or beater. The exact type is not important but it is always best, if possible to have it jacketed for 80 pounds of steam. Where such an arrangement is possible it is a decided advantage to have the mixer on the floor and the kettle for cooking the No. 2 batch suspended above it. By this arrangement it is possible to run the second batch slowly

and conveniently into the beater while that is in motion.

Many firms, especially the smaller ones, are not in a position to beat nougat. To make its high or No. 2 batch, add the beaten product and stir it carefully through.

A very satisfactory product can be made in this way if the formulas given by the manufacturers of the prepared nougat cream or whip are followed.

In fact many houses follow this general principle if their nougat beating equipment is limited but make their light batch themselves in a marshmallow beater. There are many things to be said for this method but it is best worked out by each individual house as it is an adaptation of the product to the available machine. From this it is evident that scarcely any two cooks would find the same figures suitable.

Many cooks advise the addition of a little hard fat of some kind to each batch of nougat. We are inclined to agree with this as it makes the cutting easier and, in the cheaper goods, prevents the piece, to a large extent, from sticking to the teeth. If the fat is added it should be melted and stirred in at the last moment. Cocoa butter, if very bland in flavor, may be used or a good hardened cocoanut or palm oil.

Handling the Albumen

Albumen is an important feature of nougat making and should be carefully chosen and handled. When soaked up in cold water there should be little sand present and no considerable amount of white flakes or chunks. These white particles are due to overheating while the product was drying and are valueless in beating. They are the same as cooked egg white.

We have never encountered any dried hen albumen which possessed a "fresh, pleasant odor" as is described for it in some tabulated standards but there are lots which are less objectionable in odor than others. The material should not be used if the odor is exceptionally unpleasant. Only experience will tell when it has become altogether impossible. It should be soaked up in cold water with occasional stirring, for several hours before using. It is generally the custom to put enough in water at night to serve the need of the next day. This is a safe and satisfactory practice except in hot weather when the period becomes too long and the albumen solution is almost sure to spoil. At these times it is well to crush the dry pieces, mix them with about half their own weight of sugar and then soak them for only an hour or so before use. The sugar helps largely to prevent the ground product from forming in a lump more impervious to the action of the water than the original pieces.

The soaking should always be done in a glass, earthen ware or enameled container. If the last named is used it should be watched and as soon as any of the coating is cracked off the vessel should be replaced. It is contact with iron which generally causes discoloration of the solution and later of the goods in which it is used.

Flavoring the Nougat

We have touched very little on the flavoring of the nougat. The natural "nougat" flavor is that of honey and cooked egg white but this may be supplemented, if desired, by the addition of a little vanilla or rum (roman punch). In Europe they are fond of putting in a touch of rose or violet but this is hardly acceptable to the American pallet.

Where honey has been omitted or a standard invert sugar substituted a very small quantity of Gum Styrox will be found an addition. This gum is supposed to be the basic sweetness of flower perfumes and therefore plays a very large part in the flavor of honey. There are many so-called *honey* flavors on the market which also have points of advantage and may well be considered. As is the case with all marketed extracts some are far better than others and a good one must be sought out.

Handling the Batch

Nougat after leaving the kettle is generally handled in one of the following ways. Each has its advantages and can only be selected by the one who is to employ it.

The batch may be spread on a steel slab and rolled to size with a piece of shafting, then allowed to cool and be immediately cut to desired size. We prefer to put the product in trays and allow it to mature a bit before cutting.

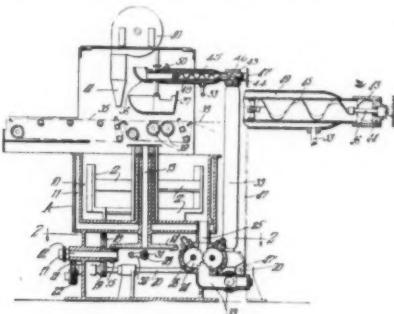
The trays were originally made of wood and after dusting with starch or flour were lined with wafer paper. The hot batch was poured into these trays, rolled down and then covered with wafer paper on top. These wafers adhered to the nougat and formed an integral part of the piece in the minds of the public. Of late years, in the interest of economy, cold rolled steel or zinc lined wood trays have been substituted. It is necessary only to rub the inside of these with petroleum jelly before pouring in the nougat. The seasoned piece dumps readily out and is ready to size and cut.

When removed from the trays the cake should be slightly warmed before rolling to size and in the case of short nougat the less it is rolled the better. Any good nougat cutter will serve to cut the goods if care is taken to keep the blade clean. It is well to rub the cutting surface occasionally with paraffine. The best cutters are provided with a belt to carry the pieces away from the knife and this will be found to be a great advantage.

WHAT'S NEW?

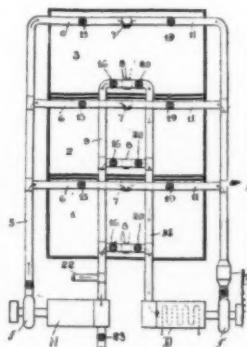
New Patents

1,524,636. Confection-Coating Machine. Alonzo Linton Bausman, Springfield, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed July 23, 1923. Serial No. 653,225. 9 Claims. (Cl. 91—3.)



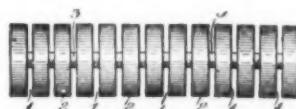
1. In a confectionery coating machine, of the type wherein warm coating material is conveyed from a supply tank and delivered to the goods to be coated through a conduit, cooling means for tempering a portion of the stream flowing through said conduit, and means for mixing said tempered portion of the stream with the untempered portion thereof.

1,524,617. Process of Drying Candies and the Like. Auguste A. Goubert, Englewood, N. J. Filed June 26, 1924. Serial No. 722,620. 4 Claims. (Cl. 34—24.)



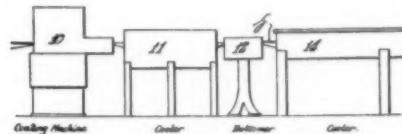
3. The herein described process of drying candies and the like in a substantially continuous operation with the employment of a plurality of drying chambers which consists of placing the articles within the drying chambers, circulating heated air through the chambers to effect the initial drying of the articles and thereafter circulating dehydrated air through the chambers to effect the final drying and cooling of the articles, the respective operations of charging, initial drying and cooling being performed simultaneously in different chambers and successively with respect to a given chamber.

1,523,870. Candy Package. Harry P. Forte, Canajoharie, N. Y. Filed Jan. 29, 1919. Serial No. 273,842. 1 Claim. (Cl. 99—16.)



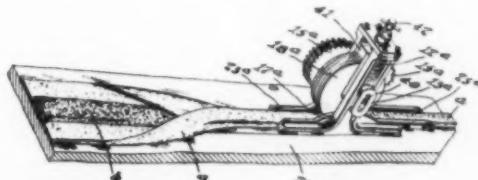
A confection comprising a plurality of axially aligned bodies having their opposed walls flattened and each having its thickness less than its diameter, and centrally arranged fragile and threadlike connections formed of the same material as the bodies, and spacing the flat faces of the bodies each threadlike connection breaking when pressure is applied at one side of the outermost flat face of each body.

1,522,738. Method of Shaping Candy. Alton L. Miller, Brookline, Mass. Filed Dec. 8, 1923. Serial No. 679,429. 1 Claim. (Cl. 107—54.)



The method of preparing candy having a filling in shape for wrapping, consisting in supplying a layer of the candy with a superposed layer of the filling, folding the candy layer upon the filling layer, and then subjecting it to rolling compression, exerted against four sides whereby a strip of substantially uniform cross-section is formed.

1,524,230. Method and Apparatus for Bottom-Coating Confections and the Like. Alonzo Linton Bausman, Springfield, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed Jan. 7, 1924. Serial No. 684,795. 18 Claims. (Cl. 91—2.)



1. In combination, means for applying a bottom coating to confections, supporting means of a previous nature for the coated confections on which means the bottom coatings rest until they are hardened, and means for subsequently applying a second bottom coating to the confections.

THE LABORATORY

Conducted by M. W. Kempf

EDITOR'S NOTE:—From time to time we will publish under this heading reference information of a technical nature which has a practical application to the work of the candy superintendent. Questions and inquiries of any kind which will make this or any other department of THE MANUFACTURING CONFECTIONER more interesting and valuable to you are especially encouraged.

Table for Converting Specific Gravity to Pounds Per Gallon

THREE are many occasions when we would like to determine quickly the number of pounds of sugar in a given number of gallons of sugar syrup. For example, it may be desirable to use up in making fondant, a batch of syrup which has been previously used for crystallizing. By taking a reading of the specific gravity or degrees Beaumé with a hydrometer, and referring to the accompanying table, this can be done in a few minutes.

The table is also useful for determining quickly the percentage of sugar in any syrup of known gravity, or for calculating the weight of sugar solutions containing a known percentage of sugar.

Table for Calculating Per Cent Sugar in Sugar Syrups from Their Gravity at 60 Degrees F.

Pct. Sugar	Sp. Gr.	Deg. Be.	Lbs. Sug. Per Gal. Soln.	Pct. Sugar	Sp. Gr.	Deg. Be.	Lbs. Sug. Per Gal. Soln.
1	1.004	0.6	0.08	31	1.134	17.4	2.92
2	1.008	1.1	0.17	32	1.129	18.9	3.04
3	1.012	1.7	0.25	33	1.144	18.5	3.14
4	1.016	2.3	0.34	34	1.149	19.0	3.26
5	1.020	2.8	0.43	35	1.154	19.6	3.37
6	1.024	3.4	0.51	36	1.159	20.1	3.48
7	1.028	4.0	0.60	37	1.164	20.7	3.59
8	1.032	4.5	0.69	38	1.169	21.2	3.70
9	1.036	5.1	0.78	39	1.174	21.8	3.81
10	1.040	5.7	0.87	40	1.179	22.3	3.92
11	1.044	6.2	0.96	41	1.184	22.9	4.04
12	1.048	6.8	1.05	42	1.190	23.4	4.16
13	1.053	7.4	1.14	43	1.195	24.0	4.28
14	1.056	7.9	1.23	44	1.200	24.5	4.40
15	1.061	8.5	1.33	45	1.206	25.0	4.52
16	1.066	9.0	1.42	46	1.211	25.6	4.64
17	1.070	9.6	1.52	47	1.216	26.1	4.76
18	1.074	10.1	1.61	48	1.222	26.6	4.89
19	1.079	10.7	1.71	49	1.227	27.2	5.01
20	1.083	11.3	1.81	50	1.232	27.7	5.14
21	1.088	11.8	1.90	51	1.238	28.2	5.36
22	1.092	12.4	2.00	52	1.244	28.8	5.39
23	1.097	13.0	2.10	53	1.249	29.3	5.52
24	1.101	13.5	2.20	54	1.255	29.8	5.65
25	1.106	14.1	2.31	55	1.261	30.4	5.78
26	1.111	14.6	2.41	56	1.266	30.9	5.91
27	1.115	15.2	2.51	57	1.272	31.4	6.00
28	1.120	15.7	2.61	58	1.278	31.9	6.18
29	1.125	16.3	2.71	59	1.284	32.5	6.32
30	1.130	16.8	2.82	60	1.290	33.0	6.45

(Continued on next page)

% Sug.	Sp. Gr.	Lbs. Sug. Per Deg. Be.	Gal. Soln.
61	1.296	33.5	6.59
62	1.340	34.0	6.73
63	1.308	34.5	6.87
64	1.314	35.1	7.01
65	1.320	35.6	7.05
66	1.326	36.1	7.29
67	1.332	36.6	7.43
68	1.338	37.1	7.58
69	1.345	37.6	7.73
70	1.351	38.1	7.88
71	1.357	38.6	8.03
72	1.364	39.1	8.19
73	1.370	39.6	8.34
74	1.376	40.1	8.49
75	1.383	40.6	8.64
76	1.389	41.1	8.80
77	1.396	41.6	8.96
78	1.402	42.1	9.12
79	1.409	42.6	9.27
80	1.416	43.1	9.44
81	1.422	43.6	9.61
82	1.429	44.1	9.77
83	1.436	44.6	9.94
84	1.443	45.1	10.10
85	1.450	45.5	10.27
86	1.456	46.0	10.44
87	1.463	46.5	10.62
88	1.471	47.0	10.79
89	1.478	47.5	10.96
90	1.485	48.0	11.13

Western Confectioners' Association Annual Convention

ONE hundred and fifty enthusiastic members of the Western Confectioners' Association met at the Biltmore Hotel, Los Angeles, January 20, 21 and 22, for their tenth annual convention, which proved to be one of the very finest in the history of the association.

The most important feature of the convention was the resolution which was passed authorizing the advertising committee to proceed with plans for a co-operative advertising program in which the entire western industry will participate. Failing and Crossley, a Portland, Oregon, advertising agency, have been appointed to draw up plans which the committee will later submit to the board of directors of the association. If approved, Mr. Fred G. Taylor, Executive Manager of the Western Association, accompanied by a member of the advertising agency will proceed to sell the idea to every member of the association. Mr. Taylor made a very impressive speech on the subject of co-operative advertising to further exploit the "Sentiment in Candy" idea for which he has become quite famous throughout our industry.

Mr. Walter C. Hughes, Secretary of the National Confectioners' Association, made a special trip west to attend the convention. His address on "Brass Tacks" was delivered at one of the luncheons at the Biltmore Hotel.

An unexpected guest in the person of John Glossinger of the Williamson Candy Company, was warmly welcomed and the program committee arranged for him to speak at one of the afternoon sessions.

The election of officers took place on the morning of Thursday, the 22nd, and Seattle was chosen as the next convention city.

The midsummer trip to Hawaii was definitely planned; a large number of the membership making reservations on the S. S. Matsonia while in Los Angeles. It is expected that at least 120 members will go to Honolulu in July. The date of sailing was set for July 8th.

The visitors voted the tenth annual convention one of the best ever. Certainly the entertainment committee, composed of S. C. Hookstratten, L. J. Christopher, both of the Christopher Candy Company, Benj. Myerson of the Hoffman Candy Company and L. R. Clark of the Cloverleaf Products Company, spared no effort to keep their guests in good spirits. Mrs. George W. Leihy, chairman of the ladies' entertainment committee, arranged a visit to the Warner Brothers' studio in Hollywood one afternoon and the next day a theatre party. Wednesday evening the members held their annual high jinks, being motored out to one of the local country clubs for the revelry. Thursday evening the president's ball and banquet was held in the music room of the hotel. The guests were seated at small tables around the dance floor.

Probably the thing which delighted most of the men delegates from colder parts of the country was the unlimited opportunity for golf. Elik Hoffman, of the Hoffman Candy Company, headed the golf committee, and secured guest privileges for all golfers at the California Country Club, where the golf tournament took place. Louis Raisen of the Raisen Zaruba Paper Box Company won the first prize, a silver cup. The second prize, also a cup, was won by W. C. Crawford of the Hawkins Candy Company, Los Angeles. A. C. Baker of the Brecht Confectionery Company, Denver, carried off the 8 day desk clock offered for third prize, while the fourth prize of a dozen golf balls went to Jack Bale of the Pacific Coast Biscuit Company, Portland.



Suggested Standards for Correct Ventilation in Work Places and Tests Therefor

by Dr. E. Hayhurst

I. Physical Standards

1. TEMPERATURE. The temperature of the air should range from 68 to 72 degrees F. for *sedentary* workers; 60 to 68 degrees F. for *semi-active* workers; and below 65 degrees F. for *active* workers. The temperature should be determined by an approved type of thermometer with readings made in the clear (the bulb unobstructed) and at 10 to 20-foot intervals where there is doubt as to uniform temperature distribution.

2. AIR MOVEMENT. The air should move (or circulate) at the rate of $\frac{1}{2}$ to 3 feet per second for *sedentary* workers; 3 to 5 feet for *semi-active* workers, and 5 to 15 feet for *active* workers. Continuous change in the direction of the moving air, or a pulsating effect, should be provided. Air movement may be determined by visible tests, such as determining the rate at which smoke, or ammonium chloride vapor, moves in the air, using a measured distance and a stopwatch.

3. HUMIDITY. The relative humidity should lie between 40 and 70%; or the difference between the readings of the wet and dry bulb should not exceed 5 degrees F. provided the wet bulb does not exceed 70 degrees F. Reading should be made at 10 to 20 foot intervals and made with an approved type of sling psychrometer.

4. VARIATION IN ATMOSPHERIC CONDITIONS. Each of these three physical conditions, temperature, circulation and humidity, should change several times per hour, preferably from one of the recommended extremes to the other, keeping in mind also, the activity of the worker.

5. RATE OF AIR REPLACEMENT. The space occupied by each *sedentary* worker should be provided with a complete air replacement of not less than 6 times per hour; for each *semi-active* worker, not less than 10 times per hour; and for each *active* worker, not less than 20 times per hour. The breathing air for replacement should come from a pure, outdoor source. Entering air (that is, via ducts or special openings) should be tempered so that upon its in-

gress to the work room, it should not vary more than 10 degrees F. from the standards for temperature suggested for the different types of workers in Paragraph 1. Provision for an extra amount of air for dilution purposes should be made for extra-human or industrial sources of air contamination not otherwise provided for.

6. AREA AND CUBIC SPACE. Each worker should be provided with at least 20 square feet of floor space and 200 cubic feet of air containing space about him.

7. DUST. The air of the work place, and particularly that breathed, should regularly be free of visible particles of dust when viewed in any direction in an illumination of not less than 1 foot candle at any point. (It is probable that air for breathing purposes should at no time have a dust content of more than 250,000 particles of "one-fourth standard unit size per cubic foot," as determined by the Palmer dust counting method.)

II. Chemical Standards

8. OXYGEN AND CARBON DIOXIDE. The breathing atmosphere should not contain less than 20% oxygen nor more than 4.04% carbon dioxide. These natural amounts usually involve no special concern. In special instances, such as in coal mines, other low places, within ship holds, and small confined areas, the breathing atmosphere may, within the bounds of safety for temporary purposes have its oxygen content reduced to 16% and its carbon dioxide content increased to 1 or 2% or higher, but in such instances, exposure thereto should be carefully supervised and made as brief as possible.

9. CHEMICAL IMPURITIES. The atmosphere of the work place should not contain poisonous particles, vapors, gases or fumes, to an extent sufficient to produce acute or chronic symptoms of poisoning in the average normal person under any length of time of exposure. (The limits for the maximum atmospheric contaminations for the commoner industrial poisons have now been fairly accurately ascertained—see under name of each in index—while the chemist's services should regularly be sought to maintain control.)

10. ODORS. The air should be kept as free of all obnoxious or nauseating odors as possible.

III. Biological Standards

11. The air of the work place should be kept as free as possible from animate life, or its products, such as bacteria, protozoa, insects, pollen and other animal or plant matters. This should be accomplished by means of screens, air washing, avoidance of dust, etc., and, particularly, during epidemics of respiratory diseases by isolation of individuals affected with communicable diseases of the respiratory tract.

IV. Physiological Standards

12. PRIMARY SENSE IMPRESSION. The air of the work place should give a favorable sense impression on first entering such place. In case of doubt, this should be left to the opinions of at least three normal adult persons and should take into consideration such factors as odor, "stuffiness," stagnation, temperature, dryness, visibility and other factors affecting the senses.

13. ROOM COMFORT. The air of the work place should be such as to give a general sense of atmospheric comfort to inmates thereof who have been present for one-half hour's time, and any longer time interval, and preferably while engaged at their regular employments. In case

of doubt, this may be left to the opinions of at least three normal adult persons and should take into consideration the same factors as stated in Paragraph 12.

14. HEALTH STATUS OF WORKERS. There should be a general low incidence of diseases, or even health complaints, on the part of workers which might be associated with faulty atmospheric conditions such as thermic fever, heat cramp, heat stroke, chilling, colds, respiratory afflictions, faintness, circulatory weakness, digestive disturbances, etc.

15. PROVISIONS FOR SUPERVISION. Some authority should be appointed to regularly supervise atmospheric conditions in the work place, as indicated under the above headings, and at intervals of sufficient brevity (depending upon the circumstances of the given work place) to insure a maintenance of conditions closely in keeping with the standards recommended.

For practical purposes the *Physiological Standards* are easiest to follow as guides, leaving the employment of the other methods for doubtful or controversial instances. To this end, *the person in charge of ventilation of the work place should skill himself in physiological impressions and develop his delicacy of sense appreciations to the utmost.*



**The National Confectioners' Convention and Exposition All Under One Roof in
Mechanics Hall, Boston, Mass.**

June 1-6, 1925

Remember the Date

Remember the Place

"Is the Confectionery Jobber Adding to the Cost of Distribution?

Or Is He Doing a Man-Size Job of Holding It Down?"

MR. VENABLE discusses the economics of distribution in such a masterful way that we feel fortunate in having the full text of his address. There are no assertive conclusions here; every statement is backed up by facts based on experiences in the distribution of merchandise in America which give us a true, unvarnished perspective of what the manufacturers and distributors of confectionery are facing.

Much has been said on both sides regarding the respective ideal relationship which should exist between producers and distributors, but this is the first time we have heard such a fundamental, fair and square exposition of the economic importance of the jobbers—a plain, simple and truthful explanation of the condi-

tions which will control the fate of the jobbing trade in particular and much of the retail trade in general.

A jobber, to hold his job, should give the manufacturer more than a mere placement, delivery and credit service; he should also give creative salesmanship to an extent which will affect a distribution service at a minimum cost to the manufacturer.

Mr. Venable and the Proctor and Collier Co., through their close contact with the Cincinnati Candy Association and working relationship with clients in the candy industry, have had occasion to make a very close study of the selling problems in this field. The following address will merit your reading and re-reading.—
EDITOR.

The Jobber's Job

by Bryant Venable

Director of Contact, Proctor and Collier Co., Cincinnati

An Address Delivered at the Second Annual Sales Conference at Cincinnati Feb. 5, 1925

AS LONG back as I can remember business men have indulged in a good deal of loose talk about "the elimination of the jobber." Some manufacturers have gone further and acted, building substantial businesses on a direct-to-the consumer basis. Insofar as such businesses have been successful and profitable they have become so by demonstrating that both the jobber and the retailer represented unnecessary elements of cost for which the consumer and the manufacturer received no corresponding value.

In the Clothing Field

We need not go far afield to find conspicuous illustrations. Right here in Cincinnati there is one manufacturer of men's clothing whose sales last year were in excess of \$10,000,000 net. His prices to the consumer were uniformly \$23.50 for a suit or an overcoat made to order. This meant that the factory sold in one year almost half a million different customers representing practically every state in the Union, a distribution, a volume and a clientele that is probably without parallel in the history of the clothing business. Between the factory and the consumer there was no jobber, no retailer—just one salesman working on a commission basis

and getting flat \$3.50 on every sale. Now obviously that manufacturer, who, by the way, is only one of many in this field, proved to the satisfaction of half a million men that by eliminating the profit of the middle men and dealing direct with the manufacturers they could save money. No doubt he proved to himself that by the same processes of elimination he could make money.

Yet there are still a great many retail stores selling men's clothing and making money at it. But in proportion to the number of retail clothiers the number of clothing jobbers is inconsiderable. *Clothing manufacturers on the whole are relying more and more upon their own direct contacts with the retailers and less and less upon the assistance of wholesalers.*

Recent Experience of "P. & G."

What is true in the clothing business is paralleled in the hosiery business and in the brush business, in the aluminum utensil business and a dozen more. Three or four years ago one of the largest soap manufacturers in the United States assumed the jobbers' function for the distribution of his own product direct to the retailer carrying stocks in his own warehouses and carrying the accounts on his own books. In some territories

this arrangement proved more efficient and more profitable than the normal scheme of distribution to the grocery trade. But where markets were thin the reverse was true. *In the final adjustment the jobbers were eliminated wherever the cost of their services was disproportionate to the value of their services in maintaining distribution, stimulating sales, making deliveries and financing the retail accounts.* Whenever the jobbers did these things more efficiently and more economically than the manufacturer could do them for himself they secured a stay of execution.

—and the Shoe Industry

Few of you are too young to remember the days when boots and shoes, as well as clothing, were normally sold through jobbing channels to the retail trade. Within your lifetime there has occurred a revolution in the merchandising of footwear, not for men alone, but for women also. W. L. Douglas pioneered the way for the retailing of shoes from the factory to the consumer through chain stores owned or controlled by the manufacturers themselves. While only the shallowest of economic thinking can accept at its face value the assurance that there is only one profit, and that a manufacturing profit, on business of this kind, it

would be difficult even for the most ardent partisan of the jobbing industry to escape the fact that there is no jobbing profit in this business because the jobber has been eliminated from it.

Side by side with the development of the chain stores, factory controlled, there has been no less significant development in direct dealing between the shoe manufacturers and the retailers who are in competition with the chain stores. Comparatively few shoe makers were equipped either with productive capacity or financial capacity to merchandise their product through their own stores. Consequently they were unable to assume the functions of the retailer and incidentally his profits. *But as they looked their problem squarely in the face they had to ask themselves whether their jobbers were adding more to their overhead than they were taking off of their selling expenses.*

If you want the answer to this question you will find it by comparing the number of concerns in the shoe jobbing business today, and the volume of business done by them, with the figures of 20 years ago. You will find it by spending a morning eaves dropping at the keyholes of the retail shoe buyers of the city in which you live. These buyers are no longer relying on the jobbers, but they are dealing direct with the representatives of the manufacturers.

Of course, there are still many prosperous and useful concerns in the shoe jobbing business. But their number is diminishing. *They are being eliminated just because they have not been able to sell the product of the shoe factories as efficiently and as profitably as the manufacturers are able to sell it for themselves.*

We might multiply illustrations indefinitely. We might trace the rise of the chain stores in the grocery industry, the drug industry, the tobacco industry. The story would be merely the repetition of the stories already told. There would be variations in the details, but in all of them we should find the same principle working to the same inevitable conclusion. *Wherever volume and profits can be increased by the employment of agencies more efficient than the jobbers they will be employed. And insofar as they are employed the jobbers will be out of a job.*

I have purposely turned to industries remote from yours for illustrations of the operation of a natural and relentless economic law. I have done this in order that you may clearly recognize that the problems of the jobber in the candy industry are not peculiar to your industry as such, but that they are common to industry as a whole. In

the commercial structure of modern life the problem of distribution, efficient, economical responsive distribution, has become the greatest problem. Production, in the broad sense, is no longer a problem at all. Industry has been developed according to such scientific laws that the capacity to produce is capable of indefinite expansion. Moreover, the cost of production, by and large, follows a descending curve as the volume of production goes up. This is as true of candy as it is of Ford cars.

On the other hand, there are limits, natural limits, beyond which it is impossible to increase the capacity of the individual to consume any product. In your industry these limits are very clearly defined. The amount of candy any individual can consume will be determined not only by his or her appetite for candy, but also by the amount of other foods consumed.

The cost of selling, on the other hand, is going up as production goes up. But the significant fact for you and for all other men who are engaged in the business of selling, is the fact that the cost of selling is going up faster than the cost of producing is coming down.

Candy Jobbers Will Hold Their Job IF—

This brings us to a close-up with the subject of our present consideration, "The Job of the Jobber": *Is the candy jobber adding to the cost of distribution or is he doing a man's size job in holding it down?* Put this question into the first person instead of the third. Let every man of us ask himself: *"Am I helping to lighten the burden of selling costs for the factories whose goods I handle or am I merely trailing along?"* If you answer this question truthfully you will not require the services of a fortune teller to forecast your commercial future.

Amid all the talk about the elimination of the jobber it will be well to remember that nobody but the jobber himself can eliminate the jobber. *So long as he is a creator of business and of profits he will be so valuable that his sources of supply and the retailers whom he serves will make it well worth his while to stay on their payroll.* When he no longer does this he is on the way out and neither manufacturers nor retailers can keep him in.

The Consumer Market for Candy

Now to what extent are the influences that have so radically altered the position of the jobber in other industries operating in the candy industry?

In the first place, we may take courage from the fact that the per capita

consumption of candy in the United States is not, as many imagined, on the down grade. The American people are actually eating more candy per capita than at any time in the past. More strength to them!

In the next place, there are powerful influences at work, and effectively at work, to stimulate the national appetite for candy. Regardless of our individual views of the eighteenth amendment it is a fact that the beverages which have fallen under the constitutional ban contained very considerable food material. In proportion as these become difficult for the great mass of the people to obtain, whether as the result of the closing of the retail outlets or of the great increase in price, other food of sugar content will be increasingly required to take their place. The candy manufacturers will have no monopoly on this business because the cake and cracker bakers, the ice cream manufacturers and the bottlers of soft drinks are also on the job. But there is that much more business to be had and the candy men will have no one to blame but themselves if they do not get their share.

The Progressive Influence in Candy Industry

But more significant is an influence that is coming out of the candy industry itself. I refer to the enlightened intelligence of those manufacturers, whether bulk goods, or of bar goods, or of package goods, whether doing a national business or operating as manufacturing retailers, who are investing their money in advertising their own wares. In the leading cities of the country progressive retailers are telling the story of candy to millions of people by means of local newspaper advertising, sometimes occupying entire pages. In the street cars, buses and subways, on the bill boards, from coast to coast, and in the pages of national magazines the self interest of courageous men in your industry is expressing itself in a manner that creates more business not only for themselves, but for all candy men.

Through your own national association and your local organization, such as are represented by this great gathering, a constructive campaign of self education is in progress. This is one of the most suspicious omens that could be desired. The days of the rule of thumb are gone. Ignorance, tradition and dumb luck cannot survive in competition with knowledge, vision and intelligence. Nowhere in your industry are the problems more difficult, nowhere is the future more hazardous than in the field of wholesale merchandising. The presence in this meeting of such a large number of jobbers

bodes well for the future of the candy industry.

The Jobbers' Market

Turn now to the other side of the picture. The colors are not so bright from the viewpoint of the jobber.

The economic factors that have been responsible for the development of the chain stores have also been responsible for bringing the chain stores to the fore as retail outlets for candy. The jobber has no part in selling to the chain stores. As a matter of fact, many of the larger chain stores eliminate not only the jobber, but the independent manufacturer from their candy business and operate their own plants. While the jobber and the retailer and even the manufacturer may resent chain store competition, if they are intelligent, they will also profit by it.

Object Lesson for Candy Jobbers

The chain stores represent the most intelligent and scientific merchandising the world has ever known. They do not deal in commodities upon which they cannot make ample profit and quick turnover. They feature most conspicuously, in their windows and in the arrangement of their stores, those items upon which the turnover is known to be most rapid and the profit most generous. Look in the windows of any Woolworth, Kresge, Knox or United Drug Store—go inside and note the location of the candy department. You will see candy in the windows and candy at the first counter as you enter and probably candy at the last counter as you go out.

Here is where you will profit. Here is a free course of education in candy merchandising. The best merchandisers in the world tell to all the world that many men who call themselves candy men do not seem to have realized—that candy, properly displayed, is half sold; that it is assured of rapid turnover; that it is profitable and that it rewards the merchant with a more liberal profit than any other item of merchandise in his stock.

Again the intensive merchandising methods of those members of the industry known as manufacturing retailers are making the business of the jobber more difficult. Between the chain stores and the stores of the manufacturing retailers the small neighborhood dealer in confections finds himself squeezed pretty tight. He thinks that these large operators are selling candy that he ought to be selling. This is not true. *They are selling candy that he would never sell. They are selling it because they are real merchants.* He would never have sold it, even if they had not, because he is not a real merchant. They are creating a candy consuming habit which would

increase his opportunities for business if he would only recognize these opportunities as they develop and avail himself of them by better merchandising methods of his own.

It's the jobber's job to teach him these things, to make a better merchant of him. Only by so doing can the jobber make himself necessary to the factories and to the retailers. In proportion as he does these things he will build a permanent franchise for himself. In proportion as he fails to do them he will be working himself out of the job.

Package Goods Distribution

Another significant development, as related to the business of the jobber, is the development of the package goods business. This business is generally done in neighborhood drug stores and high class confectionaries. To a very significant extent leading manufacturers in the package goods line have assumed the jobbing function for themselves, building the demand for their goods by advertising to the consumer and building their retail distribution by direct solicitation of the retailers.

Those manufacturers who have adopted this method have done so at tremendous money cost. The outlay represented in the building of a national distribution of this kind is fabulous. That so much of this business has been built without the aid of the jobbers is a terrific indictment of the jobbers themselves. It is equivalent to the direct testimony of these manufacturers that the jobbers have been tried and found wanting. It is as if they had said: "You jobbers have had your chance. We asked you to sell our goods, to build this distribution for us and share in the profits of our common enterprise. But we found that you are not builders of business, that you are not salesmen, that you have not the capacity to do a real merchandising job. We found that it was more economical for us to go into the jobbing business for ourselves. And the results proved that we were right."

The mill will not grind with the water that has run over the dam. The candy jobbers cannot profit directly from the package goods business that is done directly from the factory to the retailer. But there are package goods houses who are still strong in their faith that the jobber is the logical wholesale distributor for the candy factory. These manufacturers are virtually saying to you jobbers: "Here is your chance. It's not too late. Prove that you are better able to sell our goods to the retailers than we are and the business is yours."

What Manufacturers Expect of Jobbers

In the final breakdown, therefore, we find that the candy manufacturer in common with other manufacturers is looking for more than a mere placement, delivery and credit service from his jobbers. He is looking for creative salesmanship. And he must have creative salesmanship if he is to remain in business. If the jobber is too busy delivering the miscellaneous "cats and dogs" that constitute so large a part of his total volume, to devote a reasonable amount of intelligent effort to real merchandising he will eventually limit himself to the "cats and dogs," leaving to the manufacturers all the profits of the high grade business together with all the costs of selling it.

The tobacco industry furnishes a striking illustration of this very thing. Only a few years ago, a very few years ago, the wholesale cigar dealer handled not only cigars, but a general line of tobacco and cigarettes. The profits on cigarettes and tobacco were small in proportion to the investment and to the cost of selling, delivery and financing. The cigar business bore to the tobacco business somewhat the same relation that the package business bears to the candy business. It was the silk hat of the line. A wholesale cigar merchant with the exclusive distribution of one or two high grade and well established brands of cigars had a profitable business and a franchise that increased in value from year to year. But to hold these franchises it was necessary for the distributors to give to the factories more efficient distribution and at lower cost than the factories could secure for themselves by going direct to the retailers. What happened?

During recent years the growth of the cigarette and tobacco business has been so rapid that the jobbers who handled these lines on a large scale found that the major part of their capital, their energy and, more particularly, the selling effort of their road men, was being absorbed in the mass of detail incident to the distribution of cigarettes and tobaccos. Their salesmen had little or no time to perform the functions of constructive salesmanship in the interests of the high grade cigar lines.

Two years ago right here in Cincinnati one of the largest wholesale cigar houses turned over to its competitors more than a million dollars' worth of cigarette and tobacco business, on which it was not making money, in order that the undivided energy of its organization might be available for the constructive sales work necessary to the building up of the cigar business which was profitable. A few months ago, after having had

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an entire year of this redoubled cigarette and tobacco business, a second large jobber deliberately turned this business over to jobbers who make a specialty of wagon business and whose primary function is to render delivery service rather than to build sales. In this way the tobacco jobbing business is naturally subdividing into two classes, the first of which specializes in construction salesmanship on a limited number of profitable items and the second in filling orders for merchandise the demand for which has already been created by the manufacturers or their distributors.

In the candy business constructive salesmanship is as necessary as in the cigar business. Fortunately the profits on the general line handled by the candy jobber are sufficient to permit the jobber to do constructive sales work, both on behalf of the industry as a whole and in support of the particular specialties which the individual jobber may handle on a basis more or less exclusive. It augurs well for your industry that the jobbers in your industry are so generally conscious of the opportunities and the obligations that rest upon them.

The Jobber's Part in Consumer Advertising

Your national association has provided a wonderful assortment of advertising matter for the use of the retail candy dealers. You are all familiar

with the poster service to which I refer. These posters are not designed to sell Smith's candy, or Jones' candy or Brown's candy, but they are designed to sell candy. Properly displayed in the windows of retail dealers and timed to conform to the sentiments of the national gift days, these posters will do much to help the retailers cash in upon the great nation-wide purchasing suggestion that is growing more powerful every year in response to the effective advertising of candy manufacturers as a group and of individual candy manufacturers who are tying-up their own sales plans with the gift day idea.

It is the business of the jobber not only to distribute these posters among the retailers, but to see to it that they go into the windows and not under the counters of the retailers. It is the business of the jobber not only to take the retailer's order for the candy for which the retailer's customers are calling in response to the advertising of the manufacturer, but also to instruct the retailers how they can use the window displays and the store cards and the other advertising aids furnished by these manufacturers for the one and only purpose of increasing the efficiency and the profits of the retail dealer.

It is the jobber's job to educate his retailers in the art of merchandising candy. The stores of your retail dealers are your retail stores. Their capacity to sell bar goods and bulk goods, holiday goods and package goods, is

the only limit to your ability to sell the same items in wholesale units. It is the jobber's job to see that his retail stores are clean and wholesome, fitting outlets for the clean, sanitary factories in which your merchandise is made. It is the jobber's job to make the retailer realize that the chain stores and the hotel stores and the stores of the manufacturing retailers, by creating a greater candy consciousness on the part of all the people, are creating greater opportunities for him and that he will profit from these opportunities in direct proportion to his success in applying to his own store the principles of display and of service upon which the big successes have all been built.

A Brief for the Candy Jobber

Summing it all up the biggest job of the candy jobber today is the job of creating a permanent job for himself. In his relations to the retailers he has it in his power to represent not one or two factories only, but a whole line-up of factories for every one of which he can be either a salesman or an order taker, either a business builder or a delivery clerk, either a partner or a hireling. If he has the vision and the intelligence and the tenacity of purpose to entitle him to recognition as a necessary, useful factor in the scheme of modern merchandise distribution his opportunity is boundless. His is a real job, and like all worth while jobs it will be a well paid job.



**Home of Proctor and Collier Co., Cincinnati,
Where the First Candy Sales Conference
Was Held in August, 1924**



Another Record-Breaking Candy Sale Under Auspices of The Cincinnati Candy Association

CINCINNATI has added another jewel to her crown in form of another candy sales conference which, for a single zone meeting, we believe, has broken all precedents in this industry from standpoint of attendance, interest and calibre of speakers on the program. Such a program would have been a great credit to a national convention of our industry. The full proceedings and text of the speeches will appear in the March 5th issue of *Confectioners' Progress*. However, a glance at the program below will give you an idea of the exceptionally valuable and interesting messages which were delivered.

PROGRAM.

THURSDAY, FEBRUARY 5.

10:00 A. M.

Meeting Called to Order.....W. H. Pritz, Pres.
Cincinnati Candy Association.
The John Mueller Licorice Co.

10:15 A. M.

Address of Welcome.....W. C. Culkins
Exec. Vice-Pres., Cincinnati Cham. of Commerce

10:30 A. M.

"**The Jobbers' Job**".....Bryant Venable
Director of Contact, The Proctor-Collier Co.
(See text of Mr. Venable's address on page 30 of this issue)

11:15 A. M.

"**Credits**".....John L. Ritchie
Manager, Credit Men's Ass'n of Cincinnati

"**Relation Between Jobber and Manufacturer**".....Prof. F. F. Jordan
Instructor of Marketing, College of Commerce,
University of Cincinnati

2:45 P. M.

"**Too Many Zebras**".....Harry Gardner
Manager, Cincinnati Automobile Dealers' Ass'n

3:30 P. M.

"**Unit Sales**".....Geo. T. Peckham
Manager, A. J. Walter Factory,
General Discussion.

6:30 P. M.

Banquet in Roof Garden Ball Room.

FRIDAY, FEBRUARY 6.

10:00 A. M.

Meeting Called to Order.....M. A. McDonell
Sec'y and Treas., The Puritan Chocolate Co.
President Central Club

10:15 A. M.

"**Merchandising**".....R. R. Deupree
General Sales Mgr., The Proctor & Gamble Co.

11:00 A. M.

"**Plant Cleanliness and Hygiene**".....Dr. W. E. Brown
Industrial Health Conservancy Laboratories

11:30 A. M.

"**Business Ethics**".....John W. Barton
Nashville, Tenn.
General Discussion.

The Out-of-Town Visitors

Geo. Hartzel and A. C. Breed, The Euclid Candy Co., Cleveland, Ohio; E. Hover, Barton Candy Co., Bellefontaine, Ohio; T. A. Spangler and A. G. Spangler, Spangler Candy Co., Bryan, Ohio; T. R. Stelter, Robt. F. Mackenzie Co., Cleveland, Ohio; Max Glick, The Max Glick Co., Cleveland, Ohio; A. B. Ashman, Purity Candy Co., Columbus, Ohio; E. E. Trotter, The P. S. Truesdell Candy Co., Columbus, Ohio; L. H. Reed and W. C. Diven, Delaware, Ohio; C. B. Deardoff, Dayton, Ohio; C. L. Hoebner, Jr., Avon Candy Co., Dayton, Ohio; J. W. Jackson, Jackson Candy Co., Dayton, Ohio; T. E. Talmage, Underwood, Talmage Co., Dayton, Ohio; C. C. Holliger, F. A. Holliger Co., Findlay, Ohio; F. J. Banta, F. J. Banta & Son, Lima, Ohio; Geo. H. Geis, Geo. E. Smith & Co., Twightwee, Ohio; A. B. Mattingly and V. R. Frank, Mattingly Bros., Janesville, Ohio; C. R. Hermes, United States Foil Co., Louisville, Ky.; A. M. Volz and T. A. Giokey, Rudolph & Bauer, Louisville, Ky.; C. F. Erb and Byron Erb, C. F. Erb & Son, Ft. Thomas, Ky.; J. H. Zumwick, Jos. Pilger and F. J. Barkhau, of Covington, Ky.; E. R. Allured, THE MANUFACTURING CONFECTIONER, Chicago; Leigh Bowles, Stanley Bowles,



SaleConference Cincinnati—Feb. 5-6, 1925 ciatiThe Central Club and The Ohio Confectioners' Club

C. W. Lahser, W. F. Tudor and Bill Tooley, The Curtiss Candy Co., Chicago, Ill.; J. K. Meachal, Cracker Jack Co., Chicago, Ill.; Edw. C. Clark, Pan Factory, Chicago, Ill.; A. G. Holman, Williamson Candy Co., Chicago, Ill.; Reed Miller, Miller Candy Co., Fort Wayne, Ind.; W. C. Dickmeyer, Heit-Miller-Lau Co., Fort Wayne, Ind.; W. P. Heit, Heit Candy Co., Fort Wayne, Ind.; F. S. Bonter, Heit-Miller-Lau Co., Fort Wayne, Ind.; H. J. Bernstein, Marion, Ind.; A. A. Powelson, Indianapolis, Ind.; Geo. T. Peckham, A. J. Walter Factory, St. Louis, Mo.; John Laymaster, C. F. Hickok Co., Sydney, Ohio; Chas. Freytag, Elines, Inc., Milwaukee; M. L. Hasty, Richmond, Ind.; Omar C. Mewhinney and Fred B. Mewhinney, A. B. Mewhinney Co., Terre Haute, Ind.; W. C. McClelland, Clark Bros. Chewing Gum Co., Pittsburgh, Penn.; I. Roos and T. R. Young, D. Auerbach & Son, New York; Chas. P. Tuch, Stollwerck Chocolate Co., New York; A. S. Wynn, Wynn-Knox Candy Co., Birmingham, Ala.; J. M. Clark, Sweets Publishing Co., Atlanta, Ga.; H. L. Betty, Belmont Candy Co., Memphis, Tenn.; F. O. Kammerer, Menasha Woodenware Co., Menasha, Wis.; W. F. Foster, Hershey Chocolate Co., Hershey, Penn.; G. F. Kelly and W. J. Tierney, American Chicle Co., Long Island City; W. R. Banks, P. W. Beals Candy Co., Detroit, Mich.; G. C. Ulrich, New England Confectionery Co., Boston.

From Cincinnati

W. F. Evers, John Mueller Licorice Co.; Walter H. Pritz, John Mueller Licorice Co.; H. E. Brunhoff, The Brunhoff Manfy. Co.; A. W. Kalbfell, O. L. Graeser and C. L. Graeser, National Candy Co.; C. L. Fowler, M. A. McDonell, L. V. Arricco, L. Selmeier, Evart Coate and N. E. Coate, The Puritan Chocolate Co.; Lee Cranshaw and Chas. Lind, The Aromint Mfg. Co.; G. E. Sauerston, Rolo Crandall, Edw. Zeller and Howard Johnston, Sauerston & Brown; Jimmie Dietz, H. J. Fromhold and R. D. Bogue, The Nuss Confectionery Co.; Harry Doscher and John Doscher, The Doscher Bros. Co.; E. A. Fisher; Chas. J. Meakin, C. J. Meakin Candy Co.; L. F. DeMoss and J. B. Brodberger; Edgar Curry, *The Confectioners' Review*; J. W. Irvine, Merchants' & Manufacturers' Ass'n; Lester Buerkel and

Clarence Smith, Edw. Buerkel Candy Co.; Chas. G. Mullane, John Mullane Co.; H. H. Rewwer, The Robt. H. Putman Candy Co.; Fred Bissinger, Bissinger Candy Co.; L. H. Riestenberg, Aragon Sales Co.; S. Downing, Consolidated Candy & Peanut Co.; J. F. Poetker and J. F. Poetker, Jr., J. F. Poetker & Son; Jacob Denhart; Frank Wessels; C. E. Todd; S. L. Lane, L. J. Rimpler and B. A. Eckhoff, The Queen City Confection Co.; G. Otto Ehrhardt; Frank Howard and John Popken, Dolly Varden Chocolate Co.; S. E. Applegate; Ray Bigner; Fred A. Smith; M. Banchevich, Independent Marshmallow Co.; W. B. Bowman, National Candy Co.; W. W. Deagle; W. H. Burtner; F. Z. Vasche; Robt. M. Dederich, Cincinnati Candy Association.

Exhibitors at the Cincinnati Sales Conference

Stollwerck Chocolate Co.
Lovel & Covel.
The Curtiss Candy Co.
The Euclid Candy Co.
American Chicle Co.
New England Confectionery Co.
P. S. Truesell Candy Co.
A. B. Mewhinney Co., Inc.
Avon Candy Co.
Heit-Miller-Lau Co.
Beals Candy Co.
D. Auerbach & Sons Co.
Max Glick Candy Co.
Brunhoff Mfg. Co.
The Aromint Mfg. Co.
The Geo. Ast Candy Co.
The Doscher Bros. Co.
The Dolly Varden Chocolate Co.
The National Candy Co., Inc., P. Echert Factory.
The Nuss Confectionery Co.
The John Mueller Licorice Co.
Sauerston & Brown.
Geo. E. Smith & Co.
F. Z. Vasche.
The Puritan Chocolate Co.
Independent Marshmallow Co.
Mason, Au & Magenheimer.

Suggested Standards for Water Service, Sanitary Equipment Plumbing and Drainage

by Wm. H. Dittie

Chief Engineer, State Board of Health, Columbus, Ohio

and

Wm. C. Groeniger

President, The American Society of Sanitary Engineering

EDITOR'S NOTE: As explained in the note on page 18 of this issue, it is the purpose and plan of The Manufacturing Confectioner to eventually publish a Code and Manual of Cleanliness and Sanitation for the candy industry which will contain suggested standards covering every individual factor affecting directly or indirectly the purity of the product and proper manufacturing conditions under which to produce such an aristocratic article of food as is confectionery. As a foundation for such a manual, the American Society of Sanitary Engineering has kindly offered the following suggestions, based on their research work along these lines:

Suggested Standards for Toilet Rooms

- (a) When both males and females are employed, separate toilet and wash rooms should be provided.
- (b) Entrance should be clearly marked, "MEN" or "WOMEN."
- (c) Floors should be of waterproof, indestructible material.
- (d) Separating partitions should be sound-proof, extending to ceiling.
- (e) Interior partitions should be dwarfed.
- (f) Entrances should be screened, insuring privacy.
- (g) Door should be self-closing.
- (h) Toilet rooms should not be located in room where food products are manufactured.
- (i) Water closets should be readily accessible to persons using them. When possible, there should be a number of small installations rather than a few large.
- (j) The proportion of glass surface should not be less than one (1) square foot of glass to each ten (10) square feet of floor area.
- (k) Artificial light should be provided whenever natural light is not available.
- (l) Plumbing fixtures should be located in rooms or apartments having windows placed in the external wall of building, or provided with a system of ventilation which will change the air at normal temperature at least six (6) times per hour.
- (m) Ventilation for toilet rooms should be separate and distinct and have no connection whatever with other ventilating ducts in the building.
- (n) Toilet rooms and wash rooms should be heated to a temperature of not less than 58 degrees Fahrenheit.

(o) *Maintenance.* All toilet rooms, wash rooms, dressing rooms, and the floors, walls, ceilings and surface thereof and all water closets, urinals, lavatories, sinks, should at all times be kept and maintained in good order and repair, and in clean, odorless and sanitary condition. All indecent writing, marking or defacement should be at once removed.

(p) *Toilet Accessories.* An adequate supply of toilet paper in proper holder or container, should be provided.

The use of the common towel should be prohibited and when paper towels are supplied, metal receptacles for used towels should be provided.

Fixtures

(a) *Materials.* Water closets, urinals, lavatories and sinks should be either vitrified earthenware or cast iron, white porcelain, enameled on inside.

(b) *Number of Closets.* Water closets should be provided for each sex in the ratio of:

1 to	10—1
11 to	25—2
26 to	50—3
51 to	80—4
81 to	125—5

And for each additional forty-five (45) persons or fractional part thereof, in excess of one hundred and twenty-five (125), one (1) additional water closet should be provided. The number of water closets provided should be based upon the maximum number of persons employed at any one time in the area which the toilets are intended to serve.

(c) *Number of Urinals.* Urinals should be provided for male employees at the ratio of more

than ten (10) and less than twenty (20), one (1) urinal; more than thirty-one (31) and less than sixty (60), two (2) urinals, and for each additional sixty (60) males or fractional part thereof, one (1) additional urinal.

The individual vitreous, earthenware stall type floor waste outlet urinal is preferable.

(d) *Laving Facilities.* Lavatories or wash sinks should be provided at the ratio of one (1) lavatory or twenty (20) inches of wash sink for every ten (10) employes, based on the maximum number employed at any one time.

When lead, arsenic or other poisonous substances or injurious or noxious fumes, dust or gases are present, resulting from trades, or processes which are dangerous, not less than one (1) lavatory or twenty (20) inches of wash sink should be provided for every five (5) employes, with running water, soap and individual towels.

(e) *Shower Baths.* Shower baths at the ratio of one (1) shower bath for the first five (5) and two (2) for the first seventy-five (75), and one (1) for each additional one hundred

(100) men or fractional part thereof be provided when men are employed around blast furnaces, soaking pits, iron, steel rolling and finishing mills, gas producers, boilers, coke ovens, pottery kilns, glass furnaces, forges, fertilizer plants, coal tipples, foundries and some types of machine shop work.

Shower heads should set at an angle of forty-five (45) degrees at a height of five (5) feet from the floor level, delivering the stream at a downward angle.

(f) *Drinking Fountains.* A sufficient supply of clean and safe, chilled drinking water, the temperature not to be above 48 degrees Fahrenheit, should be made available in readily accessible places through drinking fountains or other receptacles.

Drinking fountains should be provided with a water stream of minimum slant to eliminate the possibility of drawing the falling water back into the ascending column, as in the case with the vertical stream and still eliminate the "hose like" force, causing difficulty in drinking from a stream with a decided slant.

Suggested Standards for Toilet Rooms in Places of Employment

(a) *Water Service.* The water service of any building should be of sufficient size to permit a continuous flow of water at any fixture on any floor at a given time.

(b) *Water Control.* Each fixture or group of fixtures should be so connected as to permit of being shut off without interference with any other fixture or group of fixtures.

(c) *Water Supplies Indicated on Floor Plan or Plot Map.* The relative location and size of all municipal-industrial, fire protection and drinking water service pipes and valves should be accurately shown on a floor plan of the building or plot map of the area covered by the place of employment.

(d) *Identification Chart of Valve Control.* All valves and shut-offs should be charted and identified by numbers with description and key to their control.

Plot maps or floor plans and identification charts should be framed and hung in office, engine or boiler room and other places, to aid employes in emergencies and in making the system fool-proof.

(e) *Identification of Exposed Piping.* Varying colored bends or markers one (1) foot long, should be painted on the exposed piping at suitable intervals to properly identify the various distributing systems.

System.	Initials.	Color of Band.
Safe City Cold	S. C. Cold	White
Safe City Hot	S. C. Hot	White
Safe City Return	S. C. Return	White
Chilled Drinking	C. Drinking	Buff
Industrial Cold	I. Cold	Blue
Industrial Hot	I. Hot	Dark Blue
Industrial Return	I. Return	Light Blue
Fire Protection	Fire	Red
Suction Line	S. Pump	Cherry
Discharge Line	D. Pump	Cherry

(f) *Hot Water for Domestic Use.* The de-oxidizing method or the de-aerating method should be employed to remove oxygen and other free dissolved gases, such as C. O. 2, nitrogen, etc., and stop corrosion of pipes and fittings, discoloration of water, and eliminate air-binding and splashing of hot water.

(g) *Water Supply Direct to Water Closets.* No water closet or urinal bowl should be supplied directly from a water supply system through a flushometer or other valve unless such valve be set above the water closet or urinal in a manner to prevent any possibility of polluting the water supply.

(h) *Prevent By-Pass Connections at Fixtures.* Connections between a drinking water supply system and an industrial system should not be made through combination valves or faucets installed to serve showers, lavatories or wash sinks.

Suggested Standards for Drainage

Separate Drainage Systems. To facilitate possibility of separate treatment and disposal independent sanitary, storm and industrial drainage systems should be installed in buildings.

Combined Drainage Systems. When existing municipal combined sanitary and storm water sewerage systems are available and offer satisfactory treatment of industrial wastes, said systems should discharge into the combined sewer outside the foundation walls of the building.

Construction, Size, Accessibility and Clean-outs. All sanitary, storm and industrial drainage systems should be constructed so as to be permanently water tight; horizontal piping run in practical alignment at a uniform grade; of proper size to produce self-scouring action; rigidly secured and supported to keep their grade; changes in direction, either horizontal or vertical should be made with the appropriate use of forty-five (45) degree bends, Y's, TY's, long sweep quarter, sixth, eighth and sixteenth bends; with manholes and cleanouts for accessibility and inspection.

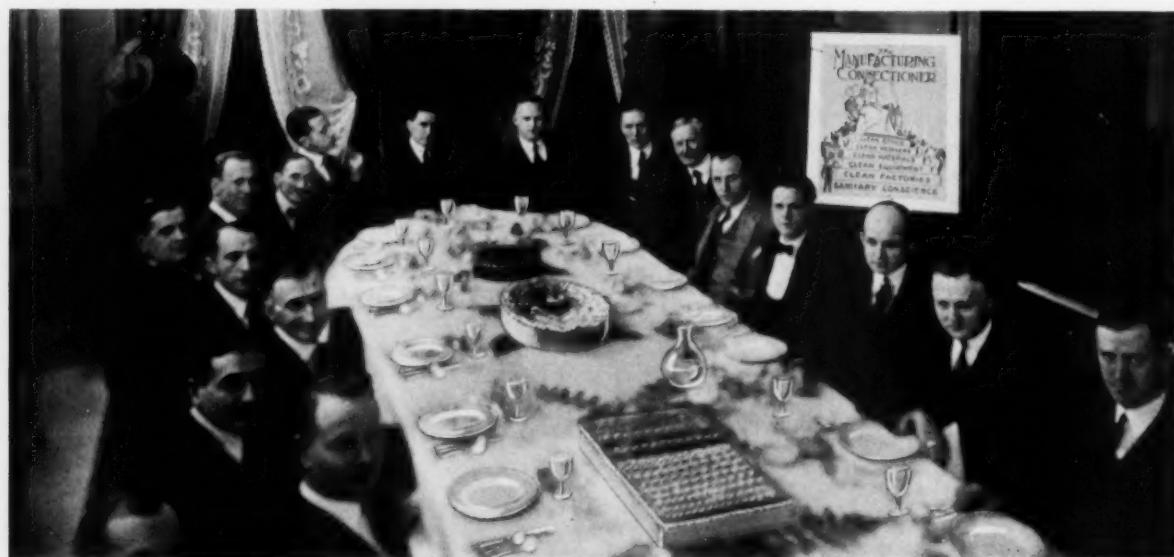
Materials. All soil, waste, vents, traps, roof conductors, or leaders should be constructed of

selected materials that are durable and will insure permanency for the system.

Drainage Below Sewer Level. In all buildings in which the whole or part of the drainage or plumbing system lies below the crown level of the main sewer, sewage or other wastes should discharge into sumps or receiving tanks and be lifted by artificial means and discharged into the drainage system.

Volatile Oils and Inflammable Wastes. When gasoline, benzine, naphtha or other inflammable oils are used or automobiles are washed, cleaned or repaired, the drainage should be so arranged as to intercept all oil, gasoline or other inflammable fluids as well as sand, silt and other solids for the purpose of excluding same from the sewerage system.

Plans—Charts for Accurate Location and Identification. The relative location and size of all sanitary, storm, or industrial drainage pipes, traps, catch basins, manholes and cleanouts, should be accurately shown on a floor plan of the building or plot map of area covered by the place of employment with proper description and key to their service. The scheme of identifying exposed piping, by painting varying colored bands on the pipes, is also applicable to the different systems of drainage.



When Production Men Get Together

On the evening of January 14th THE MANUFACTURING CONFECTIONER gave a complimentary dinner to the plant superintendents of Chicago for the purpose of discussing informally our editorial program for 1925. This conference was scheduled for January 7th, but was necessarily postponed one week. We are very sorry that the later date conflicted with previous engagements of a number of our readers who signified their desire to attend. The following were present:

From right to left: H. A. Cole, General Superintendent, The Cracker Jack Co.; J. A. Hafner, The Cracker Jack Co.; Gross Williams, Superintendent, A. G. Morse Co.; Adrian LeRoy; M. Bennett Kovnat, Vice-President, The Manufacturing Confectioner; Adolph Goelitz, President, Goelitz Confectionery Co.; O. C. Ashley, Superintendent, Williamson Candy Co.; Dr. Wm. E. Brown, Industrial Health Conservancy Laboratories; E. R. Allured, Publisher, The Manufacturing Confectioner; Norman Sweet, Sales Service Manager, Manz Corporation; E. F. Kelly, Secretary, Goelitz

Confectionery Co.; Arthur G. Goelitz, Goelitz Confectionery Co., N. Chicago; Fred W. Amend, President, Fred W. Amend Co.; Russell Faulkner, S. Pooley Co.; H. G. Hegley, Superintendent, Walter O. Birk Co.; A. S. Klein, Assistant Superintendent, Walter O. Birk Co.; N. V. Diller, Assistant Superintendent, Nutrine Mfg. Co.; (with apologies to the following and curses to the photographer who cut them off!): H. H. Hirsch, Superintendent, Nutrine Mfg. Co.; E. I. Angell, Superintendent, Peerless Confection Co.; Otto G. Beich, Manager, Paul F. Beich Co., Chicago.

